

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY
FIRST SET OF INFORMATION REQUESTS
Nantucket Electric Company, D.T.E. 04-10
Date Issued: 8/10/04

General

- DTE-G-1 Please refer to Exh. NEC-FPR-1 at A-8. Please indicate the use the Company expects to make of the spare 8-inch steel pipe that it anticipates installing as part of the proposed project.
- DTE-G-2 Please refer to the Testimony of David Fredericks at 4 to 5. Please submit a copy of the Company's peak demand and updated peak demand forecasts, dated January 1, 2003 and May 1, 2004, respectively.
- DTE-G-3 At page 4, PH Tr. 1, the Company indicates that its proposed project is at least in part a response to the higher real load growth of 5 to 6 percent for Nantucket versus the 1.2 to 2 percent load growth forecast before construction of the Company's first submarine cable.
- (a) Please estimate the extent to which Nantucket real load growth is attributable to (i) increasing population or numbers of commercial customers and (ii) increasing energy consumption by existing population and customers.
 - (b) Please refer to the Testimony of David Fredericks at 3 to 6. Please indicate whether the Company designed its proposed project specifically to meet Nantucket's power needs for 30 years assuming a projected load growth of 2.1 percent per year, or on some other basis.
 - (c) Please refer to the Testimony of David Fredericks at 3 to 6. Please estimate how long the proposed project might meet Nantucket's power needs given the Company's May 1, 2004 forecast and projected load growth on Nantucket of 2.9 percent per year.
 - (d) Please discuss in detail any contingency plans the Company may have to address significantly higher or lower load growth in upcoming years, as compared to the load growth projected for Nantucket in the most recent forecast prior to proposed project construction.

- DTE-G-4 Please refer to the Testimony of David Fredericks at 5. Please discuss in detail demand side management opportunities pursued by the Company to hold demand below the maximum rating of the Company's existing cable.
- DTE-G-5 Please refer to the Testimony of David Fredericks at 6. Please discuss in detail the Company's evaluation, in early 2000, of the cost, reliability, environmental impact, and ability to meet customers' needs in a timely fashion for each of the following supply options for the Company's customers: on-Island generation, distributed generation, and various renewable options. Please provide a copy of any study or other major documentation associated with the Company's evaluation.
- DTE-G-6 Please refer to PH Tr. 1 at 25 to 26. Please indicate whether disruption from installation or repair of the proposed submarine cable would be greater in the inner harbor area of Lewis Bay.
- DTE-G-7 Please refer to PH Tr. 1 at 25 to 26. Please indicate the frequency and average duration of repair work likely to be required for the submarine portion of the proposed project.
- DTE-G-8 Please refer to PH Tr. 1 at 46. Please provide support for the Company's claims that (a) failure of its installed cables occurs infrequently, approximately once every 25 years, and (b) the Company would need to return to work on its proposed conduit system, if installed, approximately once every 30 years.
- DTE-G-9 Please refer to PH Tr. 2 at 31. Please discuss in detail how the Company's proposed construction of a second submarine cable between Cape Cod and Nantucket would reduce electrical losses to the Company's electric transmission system on Nantucket.
- DTE-G-10 Please refer to PH Tr. 2 at 32. The Company indicates that it would not lease part of its proposed electric cable to other companies, but would lease the fiber component that is inside the winding of the cable. Please explain the Company's plans for leasing fiber optic capacity.
- DTE-G-11 Please refer to PH Tr. 2 at 36. The Company indicates that it anticipates a possible future regulatory review to determine "the right amount of backup." Please explain the nature of backup sources that might be considered, and clarify if these are in addition to the two submarine cables.

Construction

- DTE-C-1 Please refer to the Testimony of David M. Campilii at 5. Please indicate whether 8 feet is a standard depth for burial of submarine cable. Please discuss the arguments for and against burying the submarine cable at a greater or lesser depth.
- DTE-C-2 Please discuss Nantucket Electric's experience with 8-foot-deep burial of its first submarine cable. In particular, please discuss variation, if any, in the depth of the cable beneath the seafloor and any associated safety concerns or concerns for the integrity of the cable.
- DTE-C-3 (a) Please indicate why 8 feet rather than a deeper or shallower depth is proposed for installation of the submarine portion of the proposed transmission line. (b) Would installation depth of the proposed transmission line vary over the length of the submarine segment (resulting in an installation depth of eight feet on average) or remain constant? (c) Please indicate whether the Company anticipates a transition zone at or near landfall where the installation depth of the proposed transmission line would gradually increase or decrease with water depth.
- DTE-C-4 Please refer to PH Tr. 1 at 20 to 21. Please discuss when the Company might begin construction of the proposed project if the Company does not have all necessary permits in hand sometime in fall 2004 as it anticipates.
- DTE-C-5 Please refer to PH Tr. 2 at 23 and Exh. NEC-DF-3. (a) Please indicate whether the Company anticipates (i) completing its proposed conduit work in Nantucket and Barnstable at approximately the same time, *i.e.*, spring 2005; and (ii) subsequently installing its proposed cable system in the identified conduits in Nantucket and Barnstable at approximately the same time, *i.e.*, fall, 2005. (b) Does the Company expect to suspend all construction on the proposed facilities during summer 2005?
- DTE-C-6 Please refer to PH Tr. 1 at 24 to 26. For the alternative of routing through Lewis Bay, please estimate the likely minimum and maximum number of days of disruption to traffic in the inner harbor area of Lewis Bay that might result from installation there of the proposed submarine cable. Please discuss techniques available to minimize congestion in the inner harbor area of Lewis Bay for that alternative, assuming installation of the proposed submarine cable by jet sled or other method(s).

- DTE-C-7 Please refer to PH Tr. 1 at 48 to 49. (a) Please discuss reasons, if any, that construction of the proposed project might begin before 7:00 in the morning or end after 5:00 in the afternoon. (b) Please discuss reasons, if any, that construction of the proposed project might proceed on Saturdays or Sundays, and the likely hours of such weekend construction.
- DTE-C-8 Please refer to PH Tr. 1 at 48 to 49. Please indicate the hours when construction for the proposed project at the heavily traveled intersection of Old Colony and Ocean Streets would most likely occur.
- DTE-C-9 Please refer to PH Tr. 1 at 48 to 49. Please indicate whether the Company would be willing to restrict or modify hours of construction on the proposed project in response to a request for same from the owner of an adjacent residence or business.
- DTE-C-10 Please refer to PH Tr. 1 at 34. Please estimate the number of days the Company would require to finish work for the proposed HDD at Kalmus Beach.
- DTE-C-11 Please refer to PH Tr. 1 at 34. Please indicate any special safety precautions the Company anticipates taking to prevent malicious or accidental trespass of construction for the proposed project, including in the area of the proposed HDD at Kalmus Beach.
- DTE-C-12 Please refer to PH Tr. 1 at 46 and 48. Please confirm that the Company would generally undertake reinstallation of sidewalks and curb-to-curb repaving of streets affected by construction for the proposed project.
- DTE-C-13 Please refer to PH Tr. 1 at 37 to 38. Please discuss whether and how often, after completion of the proposed project, reopening of paved roadway might be required for access to the contemplated spare steel pipe and 4-inch PVC conduit.
- DTE-C-14 Please refer to PH Tr. 1 at 43. Please discuss changes to traffic volume and flow along Ocean Street that would likely occur during construction of the proposed project. Please note any anticipated rerouting of traffic, in particular rerouting of buses, trucks, or other large vehicles, including vehicles with boat or camping trailers.
- DTE-C-15 Please refer to PH Tr. 1 at 43. Please describe any and all measures that the Company anticipates in place to ensure traffic safety during construction of the proposed project. Please include in your description measures anticipated to ensure safe passage of emergency response vehicles.

Site Selection

- DTE-SS-1 Please confirm that the preferred and alternative routes for the proposed project on Nantucket are as submitted in Exh. NEC-FPR-1 or provide an updated copy of the identified routes.
- DTE-SS-2 Please refer to Mr. Campilii's Testimony at 8 to 9. Please provide a grid (similar to the grid provided by the Company at Exh. NEC-FPR-1 at A-28 and A-31) that itemizes and compares scores for the seven criteria listed by Mr. Campilii for each potential submarine cable route considered for the proposed project.
- DTE-SS-3 Please refer to PH Tr. 1 at 15. Please discuss in detail the Company's analysis of alternative sites for the proposed substation site in Barnstable, including all sites considered and criteria used to evaluate them.
- DTE-SS-4 Please refer to PH Tr. 2 at 26. Please provide a copy of the Preferred Barnstable Route Map, Exh. NEC-FPR-1 after 19, with the location of the "outer buoy" referred to by Mr. Fredericks at the Public Hearing in Nantucket clearly marked.
- DTE-SS-5 Please refer to PH Tr. 2 at 26. Please indicate those circumstances, if any, under which the Company might reconsider its commitment to staying north of the channel into Hyannis Harbor past the outer buoy.
- DTE-SS-6 Please provide any correspondence between the Company and the Massachusetts Division of Fisheries and Wildlife and the U.S. Department of the Interior with regard to endangered, threatened, or rare species along the preferred and alternative routes.
- DTE-SS-7 Please indicate whether the proposed submarine cable along the preferred or alternative routes would cross sewer outfalls, cables, pipelines, or other utilities.

Land Resources

- DTE-L-1 Please provide a copy of the aerial photograph of the Barnstable airport, proposed substation site, and surrounding area that the Company displayed April 29, 2004 at the public hearing in Barnstable for the proposed project.
- DTE-L-2 Please refer to PH Tr. 1 at 19 to 20. (a) Please discuss alternatives to horizontal direct drilling ("HDD") that the Company might use in the event that HDD proves unsuited to installation of the proposed transmission cable at the land-water interface in Barnstable (i.e., the last two to 300 feet of Ocean Avenue, passage from the landward to the seaward side of the beach, and entry into the water). (b) Please discuss advantages and disadvantages of the identified alternatives to HDD from the perspectives of environmental impact and cost.

- DTE-L-3 Please refer to PH Tr. 1 at 50. (a) For the land-based segments of the proposed transmission cable, please indicate projected magnetic field strengths directly above the lines from (i) the proposed line along the on-street route in Barnstable and (ii) the proposed and existing lines along the on-street route in Nantucket. (b) Please indicate projected magnetic field strengths at the fence line of the proposed substation in Barnstable and at the existing Candle Street, Nantucket substation with the proposed project. (c) Please measure present magnetic field strengths at the fence line of the existing Candle Street, Nantucket substation.
- DTE-L-4 Please discuss potential temporary or long-term environmental impacts, if any, that may result from construction for the proposed project at or in the vicinity of Kalmus Beach.
- DTE-L-5 Please refer to Exh. NEC-FPR-1 at Figures A-17 and A-18. (a) Please estimate the total area of salt marsh and freshwater wetland that construction and operation of the proposed project would likely disturb. (b) Please estimate the total area of 100-foot buffer to salt marsh and freshwater wetland that construction and operation of the proposed project would likely disturb. (c) Please discuss any feasible routing alternative(s) that would reduce or avoid disturbance to the identified wetlands and wetland buffer.
- DTE-L-6 (a) For the preferred and the alternative routes, please identify the biotic and abiotic resources in the nearshore and intertidal areas at landfall likely to be disturbed by construction of the proposed project. (b) Please discuss the nature and likely extent of disturbance to the identified biotic and abiotic resources.

Water Resources

- DTE-W-1 Please refer to PH Tr. 1 at 19 to 20. Please indicate whether liquification of ocean sediments by a jet sled to create a trench for installation of the proposed submarine cable may result in subsequent shifting of affected sediments at a greater or faster rate than before or without liquification.

- DTE-W-2 Please submit maps of the submarine (from landfall to landfall, at mean high water) portion of the transmission line along the preferred and alternative routes. On the identified maps, please indicate the following, within one-half mile of the route:
- (a) all commercial shellfish beds;
 - (b) all non-commercial shellfish beds;
 - (c) all shellfish areas mapped by the local shellfish warden or other comparable state or local official;
 - (d) all land containing shellfish, as defined under G.L. c. 131, § 40, or under a local wetlands ordinance or bylaw;
 - (e) all areas of shellfish propagation or management.
- DTE-W-3 For each shellfish area listed in your answer to DTE-W-2, please discuss:
- (a) the type and significance of the shellfish community identified;
 - (b) whether the productivity of the area has been increasing or decreasing over the past five years.
- DTE-W-4 Please indicate if construction or operation of the proposed project either in the vicinity of Lewis or Nantucket Bay would be proximate to an anadromous fish run.
- DTE-W-5 Please submit a map of Nantucket Sound showing areas proximate to the proposed and alternative transmission line routes, if any, where demersal and pelagic fish may likely migrate, feed, or spawn.
- DTE-W-6
- (a) Please indicate the extent to which the proposed project construction schedule prevents or mitigates impacts to fisheries.
 - (b) Please discuss the extent to which further reduction in impacts to fisheries would be possible by modifying the proposed construction schedule, if any. Please explain if the Company can consider such modifications and if not, why not.
- DTE-W-7 Please compare the amounts and impacts of suspended sediment that the proposed project would generate against that generated by fishing gear, bottom currents, waves, and tides.
- DTE-W-8 Please discuss possible impacts on fish and marine mammal habitat and migration, if any, of underwater vibration and noise that would occur with submarine installation of the proposed transmission line. Please describe any studies used by the Company to evaluate such impacts.

DTE-W-9 Please indicate whether the Company has conducted, or anticipates conducting, bioassay testing to gauge potential biological impacts from suspension of contaminated sediments that would likely occur with submarine installation of the proposed transmission line. If the Company has conducted bioassay testing, please characterize results. Please explain why the Company does not anticipate conducting bioassay testing if such is the case.